



PacketController Contention Ratio

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PacketController Network

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Overview

Contention ratio is actually dynamic bandwidth pool shared by the subscribers. The details of contention ratio please refer to http://en.wikipedia.org/wiki/Contention_ratio

One example as below

- The contention ratio is 4:1
- Add the first subscriber with 1Mbps service plan to this contention ratio group, the contention group bandwidth pool is $1\text{Mbps}/4 = 256\text{Kbps}$
- Add the 2nd subscriber with 2Mbps service plan to this contention ratio group, the contention group bandwidth pool is $256\text{Kbps} + 1\text{Mbps}/4 = 512\text{Kbps}$
- Add the 3rd subscriber with 1Mbps service plan, the contention group bandwidth pool is 768Kbps
- The procedure repeats itself, if you add 4 subscribers with 1Mbps service plan, the contention group bandwidth pool is 1Mbps.
- The point is that the bandwidth pool is dynamic when you add subscriber to contention ratio group.

The detailed procedures please see the below

Service Plan Creation

- Click Subscriber -> Service Plan and click **Add** Button

Name	Inbound	Outbound	Burst Condition	Action
40Mbps	40000000	40000000		
20Mbps	20000000	20000000		
10Mbps	10000000	10000000		
100Mbps	100000000	100000000		
512Kbps	1024000	1024000		

- Input name and bandwidth inbound/outbound

Add Service Plan ✕



Name	<input type="text" value="1024Kbps"/>	Priority	<input type="text" value="Priority: 5 (Normal)"/>
Bandwidth Inbound	<input type="text" value="1024000"/>	Bandwidth Outbound	<input type="text" value="1024000"/>
Reserved Bandwidth	<input type="text"/>	Total Bandwidth	<input type="text" value="No"/>
Burst Inbound	<input type="text"/>	Burst Outbound	<input type="text"/>
Burst Condition	<input type="text" value="None"/>	Burst Timeout	<input type="text"/>
Unburst	<input type="text"/>	PPS Inbound	<input type="text"/>
PPS Outbound	<input type="text"/>		

- Click **Save** button
-

Notes: The parameter of bandwidth inbound/outbound is bps.

Contention Ratio Creation

- Click Subscriber -> Contention Ratio and click **Add** Button

Name	Premium	Ratio	Notes	Speed	Action
content1M41	<input type="checkbox"/>	4	Contention Ratio 4-1	0 / 0	 

- Input name and ratio

Add Contention Ratio Group ✕

Name:

Balanced:

Premium:

Ratio:
















Notes:

- Click **Save** button

Notes: The balanced flag is to divide the bandwidth equally for ONLINE subscribers in this contention ratio group.

Add Subscriber

- Click Subscriber-> Subscriber, select the port and then click **Add** button

Name	Type	Plan	IP Address	MAC	Notes	Speed	Action
user3	Service Plan	40Mbps	172.16.0.0/24			0 / 0	    
user2	Service Plan	100Mbps	192.168.0.0/24 192.168.1.0/24 192.168.2.0/24 192.168.3.0/24			0 / 0	    
user1	Service Plan	512Kbps	192.168.0.225			0 / 0	    

Showing 1 to 3 of 3 entries Previous **1** Next

- Please fill in the forms of this user as below, select **Service Plan** in Plan Type dropdown and **1024Kbps** in Service Plan dropdown, select Contention Ratio in Group Type dropdown and then select content1M41 in Contention Ratio dropdown

Add Subscriber
✕

Name	<input type="text" value="contentuser1"/>	Premium	<input type="checkbox"/>	TCP Optimization	<input checked="" type="checkbox"/>	
Email	<input type="text" value="support@packetcontroller.com"/>	Password	<input type="text" value="password"/>			
Plan Type	<input type="text" value="Service Plan"/>	Service Plan	<input type="text" value="1024Kbps"/>			
Group Type	<input type="text" value="Contention Ratio"/>	Contention Ratio	<input type="text" value="content1M41"/>			
MAC Address	<input type="text"/>	VLAN	<input type="text"/>			
IP Address	<input type="text" value="10.10.10.1"/>					

Notes: Select TCP Optimization for subscriber in most case.

- Click **Save** button
- Repeat the procedures to all other subscribers to this contention ratio
- Now the policies for this user have been automatically created, check QoS -> QoS Policy

Display records Search:

ID	Name	IP	Group	App	Service Plan	Speed	Action
10	pcbox1	192.168.0.250				0 / 0	
40000	user1	192.168.0.225			512Kbps	0 / 0	
40050	user2				100Mbps	0 / 0	
40051		192.168.0.0/24	user2			0 / 0	
40052		192.168.1.0/24	user2			0 / 0	
40053		192.168.2.0/24	user2			0 / 0	
40054		192.168.3.0/24	user2			0 / 0	
40100	demouser				1024Kbps	0 / 0	
40101		10.10.10.1	demouser			0 / 0	
40102		10.10.10.5	demouser			0 / 0	

Notes: It is recommended to have all the subscribers to utilize the SAME service plan for the same contention ratio.